



## PATENT ABSTRACTS OF JAPAN

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IMON KENGO****(54) OPTICAL FIBER CONNECTOR CORE**

precision and a high reliability.

**(57) Abstract:**

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**PURPOSE:** To connect optical fibers with a high precision inexpensively by constituting an optical fiber connector core with an outside cylinder and an inside cylinder and making the melting point of the latter lower than that of the former.

**CONSTITUTION:** A glass to which impurities are added is accumulated on the inside of a quartz pipe to form a glass layer, which has a melting point lower than that of a pure quartz, on the inside of the quartz pipe, and this pipe is subjected to wire drawing while heating it to attain a pipe having prescribed outside diameter and inside diameter, and an optical fiber 1 is inserted into an insertion hole 3 of a core 2, and one end of the optical fiber 1 and the end face of the core 2 are aligned, and the end part is heated to a proper temperature by a heat source. When an inside cylinder 5 having a lower melting point is melted, the melted glass is regarded as a liquid, and the center line of the optical fiber and that of the optical fiber connector core coincide with each other by the aligning function due to the surface tension of the melted inside cylinder. Thus, optical fibers are connected with a high

